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\* INDIANA SINCLAIR-TIMEX NEWSLETTER \*  
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JULY-AUGUST 1992

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MEETINGS OF ISTUG

There will be no meeting held for ISTUG for the month of August. Instead, those who attend the Computerfest should plan on meeting at our motel room, Red Roof Inn North, at 7:30 P.M., on Saturday the 29th and we will all go out and have dinner together and chat. Any Sinclair user from any other area is also invited to join with us. Everyone is responsible for their own tab.

For the month of September, the meeting will be back at the Eagledale Public Library. For those who need directions call Paul Holmgren at 317-291-6002 or Frank Davis at 317-473-8031. All meetings, unless notified otherwise are held the last Saturday of each month, at 1:30 P.M. at the Eagledale Public Library. The meeting for September will be held at the same time and place on the 26th of September. The meeting for October will be held on October 31st, same time and place. (As is our usual, Carol and Frank will not be there for the October meeting, as they will be off at a secret place to celebrate their anniversary.) If you have not been to a meeting for a while, please take some time out to join us this day. You are always welcome to bring a guest, either family or friends. ISTUG meetings are not tightly ran as a club with Roberts Rules of Order. They are for getting help with a computing problem, showing off that new hardware or software, and for finding out what is happening in computing. We do not bite, nor do we try to be gurus. Friends helping friends. See you there! As Jack Dohany once told an unruly crowd "this is supposed to be fun, not so serious!" I do agree.

1992 COMPUTERFEST AND OTHER NEWS by FWD

All Sinclair users, all Timex users and all Z88 users are invited to stop by the booths of the Sinclair users groups, and dealers who will be attending the Dayton 1992 Computerfest. This will be at the Hara Arena in Dayton, Ohio on August 29th and 30th. This looks like our only chance to get together, so let us do so. Note to all other readers and newsletter editors: there is no good reason not to inform your members and readers of such events. Being too far away is not a good reason. Not enough room in your newsletter? If this is not the "news" that goes in a "newsletter", then what is? Someone you do not like is going to be there? Give us a break from that type of excuse. If I have stepped on toes by this remark, then it was needed.

## MECHANICAL AFFINITY AD

MANY...NEW...AND...EXCITING...Z88+QL THINGS HAVE BEEN HAPPENING HERE AT MECHANICAL AFFINITY. THIS ISSUE WE ARE GOING TO TELL YOU JUST A FEW OF THEM, AND LET YOU KNOW THAT BY THE TIME YOU READ THIS OUR TOTALLY REVAMPED AND REVISED CATALOG WILL BE DONE, AND FOR THOSE WHO HAVE ASKED FOR ONE, IT WILL BE IN THE MAIL!

WE HAVE LOWERED THE PRICE ON A FEW ITEMS! WE HAVE ADDED A LINE OF ITEMS FOR THE Z88, AND ARE LOOKING TO EXPAND IT EVEN FARTHER, SHOULD WE SEE THAT THERE IS A DEMAND FOR IT. WE HAVE ALSO ADDED TWO NEW LINES OF SOFTWARE FROM EUROPE, FROM JOCHEN MERZ SOFTWARE OF GERMANY, AND DILWYN JONES COMPUTING OF THE U.K. WE ARE ALSO ABLE TO OBTAIN FOR YOU SOFTWARE FROM CARE ELECTRONICS.

EXAMPLES OF SOME OF OUR NEW ITEMS, ALONG WITH PRICE ARE AS FOLLOWS:

Z88:128K RAM EXPANSION for \$50  
512K RAM EXPANSION for \$165.  
Z88 TO MAC CABLES for \$10  
VINYL PROTECTIVE CARRYING  
CASES for the Z88 for \$10

QL:WE HAVE LOWERED THE PRICE ON THE GOLD CARD FROM MIRACLE SYSTEMS to \$425, and this does include any Customs Fees, and P. & H. Give your QL two megs of memory, 3 disk drives (720K, 1.44 meg and 3.2 meg can be used) along with 16 mgh of speed!

SER mouse--a software driver which allows you to connect a cheap serial (PC) mouse to one of the serial ports of the QL for \$38, requires pointer enviroment such as QPAC 2 or QRAM or QTOP, and mouse.

FLP/RAM Level 2; replacement EPROM for SuperQBoards(V1.17 onwards, with and without mouse) and all trumpcards. New manual, real subdirectories, about twice as fast, latest TK2 and a new ATR device, which lets you access..... IBM/ATARI disks directly!  
All for only \$40, includes P. & H.

TO PLACE YOUR ORDER, SEND CHECK OR MONEYORDER TO MECHANICAL AFFINITY, 513 EAST MAIN ST., PERU, IN 46970, or MECHANICAL AFFINITY, 5231 WILTON WOOD CT, INDIANAPOLIS, IN 46254.

Mr. Bool stuck out his chest with pride, though his belly was far more prominent. Mr. Bool wasn't lean.

"I guess we showed THEM!" He crowed.

"Showed who, Boss?" A recently hired underling had the misfortune to ask.

"Why, the Commies and those Minutemen." Mr. Bool was happy to explain. "Didn't you hear those bums had the gall to take JUNIOR on in the ring?"

"But Boss -- JUNIOR lost..." A meek, timid, suddenly-wishing-the-words-back voice trailed off.

"What do you mean, LOST?" Mr. Bool fumed. "How could a \$300 TOY hold a stick to my marvelously low priced \$3000 brain child JUNIOR?"

The underling tried to fade into the background but it was already far too late.

"You stupid nincompoop, you're fired!" Mr. Bool bellowed.

Smarter underlings breathed easier at their narrow escape from being the bearer of bad news. It being known that null morality is a prerequisite in the Boolean Zone, a plethora of nefarious proposals began to surface; not so much to defeat the opposition, but in the self interest of lucrative job security.

"How do you spell that?" The recording secretary (10 words a minute but gorgeous) asked.

"T-H-A-T." A president of vice whispered helpfully in her ear.

Mr. Bool understood what went on behind Commies' doors, so they were no threat. The Minutemen were something else. They didn't follow the rules. They actually listened to users -- and accepted INPUT! This obscenity caused an unsettling feeling of fear deep in Mr. Bool's ponderous gut.

At first the Minutemen thought they had won the war. Alas, it was only the first skirmish; soon to be swept under the carpet with the Referees and nearly the Minutemen themselves. They wisely chose to negotiate rather than engage in futile battles. Mr. Bool threw a LOT of weight.

There was talk that they decamped first-class on the Bloo Streak Limited, which had the strange side-effect of giving its passengers laryngitis and selective amnesia. Some among them "cured" the TERMIX's "attitude problem", then disposed of them before leaving. Along the way a Sinner was punished and thrown from the train.

The Minutemen spent a wad of bucks to seal the Sinner's fate. It was never said just where those bucks came from. The saboteurs did a creditable job, but inevitably left behind physical evidence of their existence and modus operandi. Most people were led to believe that a \$300 toy had to be a pile of junk made by incompetents. It would never do for the truth leak out! It had to be smeared to divert attention from what really went on.

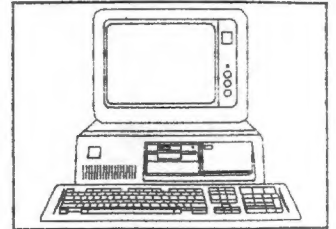
HARDSTONE ELECTRONICS is a company run by lawyers. A competing computer chip with a long reliable history served as the model for a marvelously improved jewel which worked amazingly well in spite of being micro-coded in Legalese. Machine code resembled irregular verbs we used to conjugate in school on a sweltering summer day.

A lawyer's pride and joy, it was -- a real moneymaker!

HARDSTONE saw in Mr. Bool the ideal marketing fool for their fiscal benefit.

While the TERMIX computer struggled, crippled and dishonored, the \*\*LAWYERGEM 86\*\* got heaps, mounds, and Piles-Higher-and-Deeper of software written for JUNIOR.

Some of this eventually became quite popular. Some pesky bugs got crunched to the tune of a Spanish dance. There was NO WAY to avoid the customary amount of Lawyeres fine print. Memory chip makers didn't mind a megabit.



## SO WHERE'S THE CATCH?

In spite of rumors, the TS2068 has no 64K memory limit! Unlike an 80x86, the Z80 uses external bank switching registers. Both are limited to 64k "pages" of addressable memory in the intervals between extended-address and address-register-loading instructions. Memory is allocated to an operating system, video RAM, devices, and user space.

The TS2068 Z80 has no problem with outgrowing memory which depends on register configurations carved in silistone. It operates by default with a HOME bank of 64k (16k of which is ROM), an EXROM bank of 8k (ROM, but expandable to 64k mixed), and a DOCK bank of 64k which requires mapping and formatting restrictions. It works very well even without memory expansion. This memory management magic uses special bank switching registers in the SCLD (which has the admirable ability to step aside while true expansion memory is active). That trick reduced costs to where ordinary people could afford a good computer.

The TS2068 is still a threat to competitors. CATCH TS2068 is maintained by the dearth of firmware repairs, advanced software and expansion hardware. Out there in the business world, the strangle-hold MICROSOFT and IBM presently holds on the market is being broken by others, who must temporarily accommodate existing software in addition to their own. MACINTOSH is the best known, but many are gaining market share. As expected, a media war is going on between them with the gore of dirty politics plainly exposed.

For those doubters who mistakenly believe that TS2068 DOS was a late arrival, I suggest they check the TIMEX Technical Manual APPENDIX B, Page 3, Lines 96 to 102.

I am taking the liberty of telling a little story about The WIDJUP Co.

Back in the '70s, I knew that toys are for grown-ups as well as children. My first product (BILIDUX) was a diving fishing lure that ran at the water depth where the temperature changed. The original hi-res WIDJUP logo is the shape of a fish. ENLIGHTFUL products were medieval war machine kits, trivets, and simple games like 3D Tic-Tac-Toe.

The term "ball and chain" vividly describes what my wife felt about my doing anything that had no meaning for her. I tried to interest her in such things. She arranged for checks to bounce. The WIDJUP Co. went into a long hiatus.

It resurfaced with the appearance of the Sinclair ZX81 computer. Not long after, my wife decided to leave. It was her decision, not mine. Of course my health was deteriorating, and it was getting harder to stay employed in the high-tech market place. Who knows? She might have had to pay a utility bill or something. Then a lawyer got his hooks into her and turned an uncomfortable situation into utter disaster. TIMEX leaving the market just about erased any benefit I would get from what I had sunk in national advertising. Talk about stress! All my life I have worked in high-tech development where stress is almost the name of the game. If it hadn't been for that, I doubt I could have retained sanity. I was ready to KILL somebody. Don't worry, I didn't. Did the stress end? Hah!

I contracted SLE (LUPUS), a stress related disease. Many WIDJUP products had been developed and marketed by then.

While hospitalized with SLE when I got the "request" to report for examination to determine disability. Two previous ones had been rejected. I was almost accused of refusing to report! I was accused of faking it. I spent months in an unheated house with shut-off notices and what little help my son could give. My insurance equities were long gone. I applied to the VA and that got approval, but when the SSA finally approved, my income was immediately suspended. The SSA had notified the VA that I would be billed for any payments received from them, so the VA stopped sending payments and began a funds recovery effort of their own. Did I mention that the SSA designated a person to handle my affairs without due process? I survived, regained my competency status, and eventually got most of the disability payments withheld "on my behalf".



What little emergency aid I managed to get, like heat, food, and electricity, was deducted because the State of Michigan DSS also demanded funds recovery. I didn't lose my house. I could afford visiting nursing service and delivered meals (except on weekends). At last! There were no new threats to my security, barring escalating charges, redefining the poverty level DOWNWARD? with loss of eligibility for those services. I had to modify my car so I could drive it. At last I could get to the store where they had electric carts to help people like me do their shopping. Compared to other things, getting a handicapped parking certificate was easy. I wonder why they had that office on the second floor with no elevator. That changed. Perhaps it was a wry comment I made while gasping for breath.

The WIDJUP Co. could now resume operations. NO IT CAN'T!!!

If I made any money and didn't report it, I would be fined and thrown in jail.

If I made any money and reported it, it was subtracted from my payments, AND my disability status would be reviewed, during which time my support payments would be suspended -- unless I had previously applied for the trial employment program which was highly touted by politicians as work incentive, but it still confiscated earned money. Their definition of earned money is money received. There is no such thing as expenses unless you needed special transportation to and from work. Even then, if your work is deemed essentially productive, regardless of what was earned, you became an allegedly employable person no longer deserving support!

This CATCH 22 ends at age 65. Then they change your disability status to retired. That makes appropriation statistics tilt in the desired direction and avoids embarrassing charges sure to arise if their policy continued.

The only business the WIDJUP Co. could do was non-profit, unofficial, and unadvertised. I wrote articles for which I dared not get paid. I wrote a lot of useful programs for the TS2068 which I dared not sell. Now I'm 65 and my retirement has been complicated by a stroke. I have all these accumulated lovelies for the TS2068 and no easy way to get them to you. All along I have been trying to get someone to help who wasn't in a CATCH 22 like me, but those willing lived too far away, and did not know what help I needed and why.

One of my first efforts was a data-base configured as a word processor. I called it TYPALOT (all CAPS). This version for the ZX81 printer printed sideways to get full page width paste-ups. Though limited in what it could do, it was a lot easier to use than TASWORD. The TS2068 required TypaLot (both cases). Rotated and regular fonts were used to accommodate full size printers using any of several physical interfaces that had become available. The demand for screen dumps and graphics was met by adding graphic printer driver software. TypaLot J1 for the OLIVETTI PR2300 ink-jet printer was the first addition. TypaLot GB (for the 7-pin Gorilla Banana) and TypaLot E (for EPSON and compatible) soon followed.

It isn't hard to explain why so many varieties of TypaLot are needed. Once you own a printer, you quickly learn that past idiosyncracies never die. They remain as poorly explained options. Most users don't know how to set up their printer options (switches and/or software), or choose "wrong" ones, winding up being unable to get proper graphics or screen dumps. TypaLot has some options to compensate for this.

TypaLot can now print anything which shows on the screen! Tools for desk-top publishing had arrived but that term was not yet well known. When it became so, Typalot was overlooked, and still is.

Graphic printer software drivers with "window" editors are independent utilities. WINKJET 1 was for OLIVETTI PR2300, GRAFISON for EPSON compatible, and WIDJUPEEL for the GORILLA BANANA of course. During their creation, it was found that having all drivers use the same relative entry point addresses allowed them to overlay each other. Then, a program can use more than one printer, even during the same session. All drivers do "windows". Any part of the screen can be printed to any part of the page. A "window" is best thought of as on the printed page, being mapped on the screen and then being written to by a graphic program (like TypaLot, CAD#3 or ARTWORX). Desk-top publisher devotees have special windows for applications. High performance graphic window drivers like those above eliminate the need for special cases. Nothing improves a product quite so much as working with the right tools.

CAD#2 would be impractical without DOS. CAD#1 took forever to load and save. It was so difficult to use I never released it. Meanwhile, I had been working on my own DOS and bank-switching system. That required fixing, or getting around, the barricades put into ROM to prevent such use. In the process, I wrote a program which allowed OPENing new channels and floppy buffers in an unmodified TS2068. I allocated buffer space for the printer driver, and for good measure, an entirely new utility I called LLIST#5 because it was attached to Stream #5. Now you can load new programs without disturbing printer drivers, LPRINT#5, nor LLIST#5 (your CENTRONICS port). An added benefit is being able to format, label, and style listings for any program you load. LLIST#5 became an integral part of CAD#n to complement the graphic drivers needed to make the best use of printers. Having two major DOS systems and various printers doesn't make compatibility any easier.

Let me explain why I wrote CAD#1 in the first place. Before you can do anything new and useful with the 2068, you have to connect other equipment. TIMEX had plans to capture that market, but deep-sixed them. An adapter is needed to get out of the 2068 to an external back-plane, which can then accept any kind of accessory you might want. My original one (still in use) hosts a CENTRONICS Z80PIO interface and a relay control board used to automate a tape unit. The time is long passed when I can do printed circuit work. Time also took its toll on my external core memory hardware that replaced HOME and EXROM so a proper DOS could be implemented in the address space from 8 to 16k of EXROM. The system worked pretty much the way it was originally supposed to. The DOS was IBM format. File handling logic was partly my own, but mostly what the keyboard and syntax relics indicated.

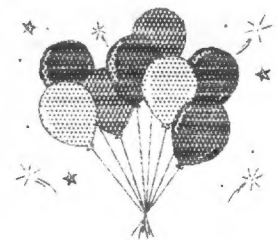
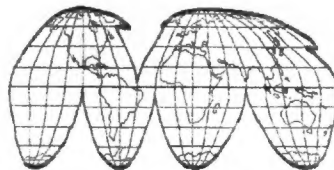
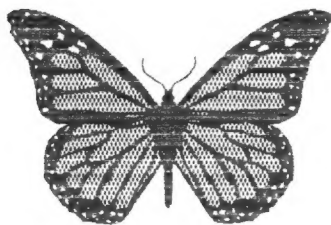
I wrote the CAD#n series to help others break down the barriers killing the tremendous power of the 2068. I'm tired of being told it can't be done. I took great pains to publish all details necessary to make the hardware, and how to set it up. What I couldn't give was an image of the ROM code I patched as the need arose. My only resort was to recreate it from memory. Errors would be unavoidable. I hoped to show how it was done so folks could take it from there. The biggest barrier to that is the incredible belief that TIMEX programmers and Sinclair could have been so stupid they never had the system up and going before big bucks were earmarked to produce it. DUMB!!!!

There are other WIDJUP programs, games, utilities, etc. which use advanced video display modes, color, grey-scale graphics, 3-D on-screen pictures, and I forget what else. Unfortunately, this Henny Penny cannot bake bread without help, but the WIDJUP pantry is not bare.

Thanks for letting me bend your ears. Viva le 2068!

Bill Pedersen

PS Some 24-pin graphics.



**UPDATE!**  
MAGAZINE

**UPDATE!**  
MAGAZINE

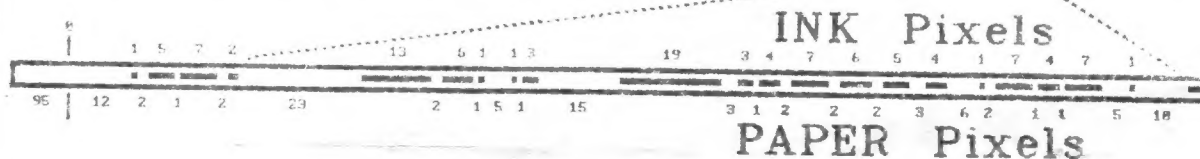
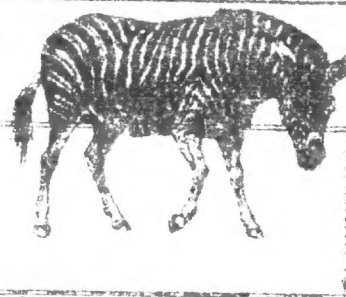
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**UPDATE!**  
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QUARTERLY MAGAZINE - \$18yr  
P.O.BOX 1095, PERU, IN 46970  
SINCLAIR NEWS IN NORTH AMERICA

# RLE MADE EASY

Run Length Encoding is one way to send pictures over the telephone lines. Picture data replaces character data. The parity bit is ignored, as are ASCII control codes except 07h.



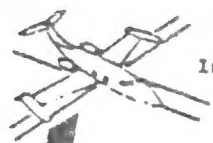
The divider bar shows where there are too many PAPER pixels to fit in a byte. An INK byte for 0 pixels is inserted. Any number of pixels can be accommodated. In this way, bytes alternate between INK and PAPER. 32 is added to pixel count so that 0 to 95 pixels can be stuffed in each byte. The list of bytes is ended by 07h. It begins after a header ending in "GH". Headers can be up to 101 bytes.

Picture data above is: .../127/32/44/33/34/37/33/39/34/34/55/45/34/38/33/33/37/33/33/35/47/51/35/35/33/36/34/39/34/38/34/37/35/36/38/33/34/39/33/36/33/39/37/33/42/...

RLE works best with line drawings. It often yields files bigger than SCREEN\$, so file compression is not to be expected.

BBS Uploading and downloading is its forte, at which it excels. (C)1992 W.J. Pedersen





Cox/Dayton  
International Airport.

1

National Rd.

3

I-75

I-70

Little York Rd.

Dog Leg Rd.

Westbrook Rd.

Dasore Rd.

*Hara*

Shiloh Springs Rd.

Wolf Rd.

Wright Brothers Parkway  
(formerly Turner Rd.)

Wright Brothers  
Parkway  
(formerly  
Shoup Mill Rd.)

Salem Ave.

Main St.

Wright Brothers  
Parkway  
(formerly  
Needmore Rd.)

Wagoner Ford Rd.

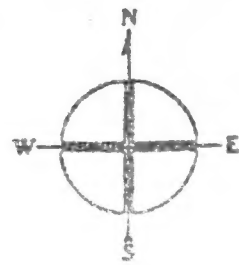
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U.S. 35

*Hara*

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Auburn, IN 46706

ISTUG is a not for profit, educational organization dedicated to helping users of Timex, Sinclair and Cambridge computers. We offer a hardcopy and software library for our membership along with technical assistance and monthly meetings (usually the last Saturday of the month at 1:30 P.M.). Full membership is available at \$12 per year and newsletter only subscriptions at \$9 per year. Send all inquiries, along with SASE, to ISTUG, 513 E. Main St., Peru, IN, 46970.